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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,758	10/22/2003	James R. Skorpik	12872-E (BA4-200)	6694
21567	7590	06/14/2006	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			SCHNEIDER, CRAIG M	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/691,758	SKORPIK ET AL.	
	Examiner	Art Unit	
	Craig M. Schneider	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 24-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 24-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/22/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/22/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "62" has been used to designate both the battery and the lower portion of the RFID tag. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because on Figure 2B the arrow associated with "POWER ON LED" appears to be pointing to "88" when it is associated with "94". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes

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made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The applicant discloses that an electrical conductor is disposed between the valve positioner and the I/P) transducer. This is not how an I/P transducer and a valve positioner are connected. The I/P transducer takes an electrical signal from a sensor or other source and converts the electrical signal into a pressure signal that is then sent to the valve positioner. Therefore the connection between the I/P transducer and the valve positioner should be a pressure conductor and not an electrical conductor.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant discloses that an electrical conductor is disposed between the valve positioner and the I/P) transducer. This is not how an I/P transducer and a valve positioner are connected. The I/P transducer takes an electrical signal from a sensor or other source and converts the electrical signal into a pressure signal that is then sent to the valve positioner. Therefore the connection between the I/P transducer and the valve positioner should be a pressure conductor and not an electrical conductor.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,2, 15, 24, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by DeLattre et al. (5,797,417).

DeLattre et al. disclose a system (and associated method) comprising a valve, a plurality of RFID sensor assemblies coupled to the valve to monitor a plurality of parameters associated with the valve, a control tag configured to wirelessly

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communicate with the respective tags that are coupled to the valve, the control tag being further configured to communicate with an RF reader, and an RF reader configured to selectively communicate with the control tag, the reader including an RF receiver (col. 4, lines 44-49; col. 5, lines 32-36 and 64-67 and col. 7, lines 34-36).

Regarding claim 2, DeLattre et al. further disclose that the valve is a fluid operated valve (col. 6, lines 31-41).

Regarding claim 15, DeLattre et al. further disclose wherein the RFID sensor assemblies are used to determine valve position (col. 5, lines 18-21).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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11. Claims 3-7 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitzgerald (5,197,328) in view of DeLattre et al. as best understood by the examiner.

DeLattre et al. disclose all the features of the claimed invention except that the valve includes a valve positioner, an electrical conductor, and an I/P transducer coupled to the valve positioner by the electrical conductor, and wherein at least one of the plurality of RFID sensor assemblies is coupled to the electrical conductor. Fitzgerald discloses a valve positioner (44), an electrical conductor (54), and an I/P transducer (42) coupled to the valve positioner by the electrical conductor, and wherein at least one of the plurality of RFID sensor assemblies (72) is coupled to the electrical conductor (col. 5, line 65 to col. 6., line 8 and lines 54-61).

Regarding claims 4 and 26, Fitzgerald further discloses a system that includes a pneumatic actuator (12), a valve stem (16) coupled to the pneumatic actuator, and an actuator-valve stem coupler (20), and wherein at least one of the plurality of RFID sensor assemblies (61) is coupled to the actuator-valve stem coupler (col. 6, lines 20-27 and 62-67).

Regarding claims 5 and 27, Fitzgerald further discloses a system that includes a pneumatic actuator, a valve positioner, and a fluid conduit (56 and 46) in fluid communication between the pneumatic actuator and the valve positioner, and wherein at least one of the plurality of RFID sensor assemblies (74) is coupled to the fluid conduit between the pneumatic actuator and the valve positioner.

It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to utilize the RF sensor assembly of DeLattre et al. onto the valve system of Fitzgerald, in order to have remote control of the system without the need for hardwiring.

Regarding claims 6-7 and 28-29, Fitzgerald and DeLattre et al. disclose a system that includes a pneumatic actuator, a valve positioner, a booster (58)(col. 6, lines 16-20), a first fluid conduit (46) in fluid communication between the pneumatic actuator and the booster, a second fluid conduit (56) in fluid communication between the booster and the valve positioner, and wherein at least one of the plurality of RFID sensor assemblies (74) is coupled to the second fluid conduit. Fitzgerald and DeLattre et al. further disclose a fluid supply line (48) in fluid communication with the booster. Fitzgerald and DeLattre et al. do not disclose at least one of the plurality of fluid sensor assemblies coupled to the first fluid conduit and fluid supply line.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to place additional sensor in the fluid conduits of the system of Fitzgerald and DeLattre et al., in order to better monitor the system.

12. Claims 8 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitzgerald and DeLattre et al. as applied to claims 7 and 29 above, and further in view of Barker (3,462,115).

Fitzgerald and DeLattre et al. disclose all the features of the claimed invention except that the system further comprises a regulator valve in fluid communication between the fluid supply line and the valve positioner, a conduit between the regulator valve and the valve positioner, and wherein at least one of the plurality of RFID sensor

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assemblies is coupled to the conduit between the regulator valve and the valve positioner. Barker discloses a regulator valve (2) in fluid communication between the fluid supply line (1) and the valve positioner (B), a conduit between the regulator valve and the valve positioner, and wherein at least one of the plurality of RFID sensor assemblies is coupled to the conduit between the regulator valve and the valve positioner.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the regulator valve of Barker onto the system of Fitzgerald and DeLattre et al., in order to ensure the proper pressure of the air entering the system.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize an additional sensor in between the regulator valve and the positioner of the system of Fitzgerald-DeLattre et al.-Barker, in order to make sure the regulator valve was functioning properly.

13. Claims 9 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balazy et al. (6,152,162) in view of DeLattre et al.

Balazy et al. disclose a system comprising a conduit (22) upstream of the valve and a conduit (24) downstream of the valve, wherein at least one of the plurality of sensor assemblies (14) is coupled to the conduit upstream of the valve and at least one of the plurality of sensor assemblies (16) is coupled to the conduit downstream of the valve (col. 2, line 66 to col. 3, line 8). Balazy et al. does not disclose that the sensor

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assemblies are RFID and the restrictions as recited in claim 1. DeLattre et al. disclose the features of claim 1 as discussed above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the RFID system of DeLattre et al. onto the valve system of Balazy et al., in order to have a remote station that is not hardwired to the valve system.

14. Claims 10 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leon (4,882,937) in view of DeLattre et al..

Leon discloses a valve (10) wherein the valve includes a seat and wherein the sensor assemblies (38 and 72) are used to determine valve seating force (col. 8, lines 52-61). Leon does not disclose the RFID sensor discussed in claim 1 that are rejected via DeLattre et al. above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the RFID system of DeLattre et al. onto the valve assembly of Leon, in order to have a remote station that is not hardwired to the valve system.

15. Claims 11 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLattre et al. in view of Bell et al. (2004/0159515).

DeLattre et al disclose all the features of the claimed invention except that the system includes a sensor assembly that is used to determine a spring preload of the spring. Bell et al. disclose a system that includes a spring (22) and a sensor (24) that is used to determine a spring preload of the spring (page 1 onto page 2, paragraph 18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the spring preload sensor of Bell et al. onto the RFID system of DeLattre et al., in order to communicate changes in the coil spring preload to a controller.

16. Claims 12 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLattre et al. in view of Ohno et al. (2002/0080041).

DeLattre et al disclose all the features of the claimed invention except that the system includes a sensor assembly that is used to determine a spring constant of the spring. Bell et al. disclose a system that includes a spring and a sensor that is used to determine a spring preload of the spring (page 2, paragraph 29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sensors Of Ohno et al. with the device of DeLattre et al. to calculate the spring constant of the spring of DeLattre et al..

17. Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLattre et al. in view of Fong et al. (2002/0026827).

DeLattre et al disclose all the features of the claimed invention except that the system includes a sensor assembly that is used to determine spring compression. Fong et al. disclose a system that includes a spring and a sensor (78 and 80) that is used to determine a spring compression of the spring (page 3, paragraph 31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sensors of Fong et al. with the RFID system of DeLattre et al., in order to calculate the spring compression.

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18. Claims 14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLattre et al. in view of Shirk et al. (6,199,629).

DeLattre et al disclose all the features of the claimed invention except that the system includes a sensor assembly that is used to determine a friction load on the valve. Shirk et al. disclose a system that includes a sensor (32) that is used to determine a friction load on the valve (col. 4, lines 65-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sensors of Shirk et al. with the RFID system of DeLattre et al., in order to determine the friction load on the valve.

19. Claims 16 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLattre et al. in view of Badami (5,905,648).

DeLattre et al disclose all the features of the claimed invention except that the system includes a sensor assembly that is used to determine valve stroke times. Badami discloses a system that includes a sensor (35) that is used to determine valve stroke times (col. 10, lines 19-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sensors of Badami with the RFID system of DeLattre et al., in order to determine valve stroke times.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Krone et al. (5,628,229), Adams et al. (6,178,997), Junk

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(7,039,537), and Boger et al. (2001/0037670) disclose valve systems with a plurality of sensors and wireless control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMS *cms*
June 5, 2006



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